

1 WHAT IS CLAIMED IS

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Substantially 1. A recording head of an inkjet recording apparatus for recording an image on an object, comprising:

a recording head unit supplied with ink for
10 recording an image on a recording object by forming a jet of the ink, said recording head unit comprising: a nozzle for ejecting said jet; a passage of ink provided in communication with said ink nozzle for supplying said ink to said nozzle; an energization part provided on
15 said passage for applying energy to said ink in said passage to form said jet; and an ink inlet formed in communication with said passage for receiving said ink, said inlet including therein filter means which is made from stainless steel mesh for eliminating particles from
20 said ink supplied to said inlet; and
an ink reservoir unit for holding therein said ink, said ink reservoir supplying said ink held therein to said inlet of said recording head part, said ink reservoir accommodating therein a material infiltrated
25 with said ink;

1 said recording head unit carrying thereon
first connection means as a part of said recording head
unit, for connecting said recording head unit to said
ink reservoir unit;

5 said ink reservoir unit carrying thereon
second connection means corresponding to said first
connection means as a part of said ink reservoir unit,
for connecting said ink reservoir unit to said recording
head unit;

10 said first and second connection means being
so formed that said first and second connection means
establish, when said ink reservoir unit is mounted upon
said recording head unit, a detachable engagement with
each other in a manner, such that said ink in said
15 reservoir unit flows to said passage in said recording
head unit.

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2. A recording head as claimed in claim 1,
wherein said recording head further includes a carriage
member adapted to be mounted upon an image recording
25 apparatus for carrying said recording head unit and said

1 reservoir unit together in the state that said recording
head unit and said reservoir unit are connected with
each other, said carriage member having a positioning
part for determining the position of said nozzle of said
5 recording head unit with respect to said carriage
member.

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Sub A2 3. A recording head as claimed in claim 2,
wherein said carriage member includes a base part for
carrying said recording head unit and said ink reservoir
unit and a cover part mounted upon said base part in a
15 manner rotatable with respect thereto, said base part
carrying a positioning part such that said positioning
part forms a mechanical engagement with a front part of
said recording head unit on which said nozzle is formed,
said cover part urging said recording head unit
20 resiliently upon said base part such that said front
part of said recording head unit establishes said
mechanical engagement with said positioning part.

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1 4. A recording head as claimed in claim 3,
wherein said cover part carries thereon an
interconnection pattern for carrying electric signals,
and wherein said recording head unit carries thereon an
5 interconnection pattern corresponding to said
interconnection pattern on said cover part, said
recording head unit thereby establishing an electrical
contact with said interconnection pattern when said
recording head unit and said ink reservoir unit are
10 mounted upon said carriage member.

15 5. A recording head as claimed in claim 1,
wherein said recording head unit has a first guide part
for guiding said ink reservoir unit with respect to said
recording head unit for mounting and dismounting said
ink reservoir unit on and from said recording head unit,
20 said ink reservoir unit having a corresponding second
guide part for engagement with said first guide part.

1 6. A recording head as claimed in claim 1,
wherein said second connection means of said ink
reservoir unit comprises an opening and an elastic seal
part sealing said opening, ²⁶ ~~said first connection means~~
²⁷
5 of said recording head unit being provided so as to
establish a communication between said recording head
unit and said ink reservoir unit via ²⁷ said elastic seal
part when said ink reservoir unit is mounted upon said
recording head unit.

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Ref a3> 15 6. A recording head as claimed in claim 1,
wherein said first connection means of said recording
head unit comprises a substantially rigid tubular member
for insertion into said ink reservoir unit such that
said tubular member breaks ³⁹ (²⁷ said seal membrane) when said
ink reservoir unit is mounted upon said recording head
20 part, said tubular member having a passage of ink
therein in communication with said passage of ink in
said recording head unit.

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1 8. A recording head as claimed in claim 7,
wherein said tubular member has a sharp pointed part
that breaks said seal membrane when said ink reservoir
unit is mounted upon said recording head unit.

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9. A recording head as claimed in claim 1,
10 wherein said ink reservoir unit further has a vent for
communicating an interior and an exterior of said ink
reservoir unit, said vent being closed by a removable
seal member.

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10. A recording head as claimed in claim 9,
wherein said removable seal member comprises a screw
20 threaded into a wall of said ink reservoir unit.

25 11. A recording head as claimed in claim 9,

1 wherein said removable seal member comprises a
substantially rigid projection formed unitrarily to a
wall of said ink reservoir unit in correspondence to
said vent for closing said vent, said projection being
5 so shaped that said vent is formed upon breaking of said
projection.

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